Cometary Cell C2118

Images

Aerogel Cell: C2118-01.jpg

C2118_T1_20x.jpg

Cell History: Cell C2118 was removed from the cometary grid on May 18, 2006. The tile was transferred to the remote storage facility at White Sands, New Mexico.

Track Information: The tile has several

small-sized tracks.

Feature Images

Allocation History

Results

Log Entries

Note: All track / features (e.g., T1) numbers assigned during the Level 3 scanning are to be considered "**Temporary**" and in do not relate to the "Official" track number that is assigned when a given features is extracted (e.g., Keystoned) from a tile. Abbreviations: EH – Entrance Hole, TP – Terminal Particle, MTW – Maximum Track / Bulb Width, TL – Track Length.

06-06-06 - T.H. See

Removed the next sample from the cabinet (C118) and mounted in the Level 3 fixture in the same orientations as associated with Level 2.

Set system up for Depth Profiles.

While setting up for the depth profiles I found an unusual looking surface feature or object on the side of the tile. I assume this is some sort of manufacturing artifact, but I am not sure. The inner circle measures about 400 μ m across, while the outer ring feature measures ~ 1200 x 1050 μ m across in the Y and X directions, respectively at the widest points on this outer feature.

Completed Depth Profiles at ~ 9:15 am.

Migrated sample in to Angular Viewing position for track documentation.

C118-T1 – Carrot-shaped track located toward the front center of the tile. Angular measurement is \sim 3378 & 3467 µm in length for the two styluses visible; each stylus possesses a visible terminal particle. Entrance hole measures \sim 54 µm across, while the widest part of the track is \sim 160 µm across. Particles could not be focused on good enough to permit a reasonable estimate of their size. From the side view, the particles at the terminus are less than or equal to 5 µm in size.

C118-T2 – Small, bulbous track to ward the back surface of the tile from the scope. Could not image or see well enough to measure; visible bulb portion at 20x measures ~ 160 μ m in length from the angular view. Rotated tile and still get the ~ 160 overall length for the bulbous portion of this track. No stylus visible. EH is ~ 15 μ m while the MTW is ~ 64 μ m.

C118-T3 – Long narrow track with large terminal particle. Angular track measurement is on the order of 1600 to 1620 μm in length. Either the terminal particle or a reflection on the lower track measures nearly 15 μm in size. Some deformity or object in the tile is preventing the camera from getting a good view of the entrance hole. Using the reticule at 80x indicated that the Entrance hole is on the order of 30 μm in size with max track width on the order of 75 FS μm .

Right Front Fiducial – Not visible in the angular view but was found in the normal (*i.e.*, 90°) view. Fiducial measure ~ $995 \, \mu m$ in length.

Rotated tile 180 degrees in an effort to get a better image of the small bulbous Track 2, This was only partially successful since the sides of the tile are very irregular causing reflections of light that interfered with the image acquisition.

Did image the Tracks 1 & 3 from this side along with Track 2.

Re-rotated the tile and took images of the Right Front Fiducial and the two long tracks 1 & 3 in the relaxed configuration or with the pressure of the Level 3 fixture totally released so the tile could fully relax.

Completed all documentation of this tile and place it back in the sample holder and cabinet.